

IN THE CLAIMS:

The following is a complete listing of claims in this application.

Claims 1-12 (canceled).

13. (currently amended) In a process for determining the form of a duplicate of a residual tooth area which is to be fitted with a dental restoration, in which duplicate sections to be fitted with the restoration and/or duplicate sections determining its design are removed from the duplicate and form data to be allocated to the forms of the sections is determined and stored in a computer, by means of which the form of the restoration is calculated taking into consideration the spatial allocation of the duplicate sections,

the improvement comprising storing in a computer a referencing of a support means for the duplicate or a referencing on the duplicate to be produced during fabrication of the duplicate,

separately placing sections of the duplicate together with corresponding sections of the duplicate connected thereto in a holding device and determining with a sensor geometry of each section, and

individually referencing the duplicate sections as to spatial allocation to each other in ~~a~~ the referencing stored in the computer, and which is independent of the duplicate,

~~wherein measuring said duplicate sections is performed by placing each section to be measured separately into a holding device, and determining with a sensor geometry of said section and said referencing allocated to said section~~ sections.

14. (currently amended) Process according to claim 13, comprising the steps of:

- taking a casting of at least one of the residual tooth

areas comprising part of the jaw;

- fabricating the duplicate by filling the casting with plaster;

mounting the duplicate on ~~a base plate~~ the support means having references thereon which are stored in the computer;

- splitting the ~~base plate~~ support means with the duplicate mounted thereon to obtain ~~model~~ support means sections which comprise the duplicate sections;

- measuring the duplicate sections for capturing form data and the references provided on the respective ~~base plate~~ support means sections;

- matching up data, which correspond to the references of the ~~individual model~~ support means sections, with the referencing data stored in ~~a~~ the computer; and

- fabricating a dental restoration under consideration of the form data and the data gained by matching.

15. (previously presented) Process according to claim 14, wherein the duplicate is directly provided with references.

16. (previously presented) Process according to claim 15, wherein the references are produced when making the casting.

17. (currently amended) Process for determining the form of a duplicate of a residual tooth area which is to be fitted with a dental restoration, comprising the steps of:

taking a casting from at least one residual teeth area of a jaw to be fitted with a restoration,

fabricating a model from the casting as the duplicate by filling the casting with plaster,

attaching the duplicate to a base plate having references thereon,

splitting the base plate with the duplicate attached thereto apart to obtain duplicate sections,

measuring the duplicate sections taking into

consideration the references from the base plate sections,
onto which the duplicate sections are arranged,

storing in a computer a referencing of the base plate for
the duplicate or a referencing on the duplicate to be produced
during fabrication of the duplicate, and

individually referencing the duplicate sections as to
spatial allocation to each other in ~~a~~ the referencing stored
in a computer, and which is independent of the duplicate.

18. (previously presented) Process according to claim 17,
wherein geometrical properties of the base plate and/or
markings are used as the references.

19. (previously presented) Process according to claim 18,
wherein the base plate contains points and/or lines as the
markings.

20. (previously presented) Process according to claim 18,
wherein the base plate contains geometrical properties
delimitations in the form of edges or surface sections.

21. (previously presented) Process according to claim 17,
additionally comprising surface grinding the duplicate on an
underside and attaching the underside to a planar surface of
the base plate following a tooth arc.

22. (previously presented) Process according to claim 21,
wherein the duplicate is attached to the base plate such that
the duplicate is spaced on all sides from an edge of the base
plate.

23. (previously presented) Process according to claim 17,
wherein the base plate exhibits along a longitudinal wall
running along the duplicate, a texture.

24. (previously presented) Process according to claim 23,
wherein the texture is a wave-shaped and/or zigzag geometry.

25. (previously presented) Process according to claim 24,
wherein intersections or virtual interfaces of peripheries of

the wave-shaped and/or zigzag geometry are used as the references.

26. (previously presented) Process according to claim 17, wherein references are applied directly to the casting.

Claim 27 (canceled).